

Teaching Suggestions: Geology

The Yosemite geology section is targeted for grades 4-6 and is correlated with the geology and natural resources section of the California State Science Framework. The exercises and activities are designed to enable teachers to conduct a virtual hike through the park using this web site, or to conduct their own geology classes in Yosemite National Park.

The Geology section contains the following materials:

- teaching suggestions
- glossary and glossary pop-up terms
- geology references and resources
- geological timeline
- maps of the suggested hike area

The Field Journal and Activities sections contain interactive questions about Yosemite's geology. In the Field Journal section, students can create their own field journal book, and the questions are designed to prompt them to think about the park's geology. They can enter answers to the questions or draw pictures in their Field Journals.

The Activities section also contains interactive questions designed to quiz students on information they learned in the Overview and Field Journal sections as they “hike” along the Mirror Lake Trail. Students always have two chances to answer correctly (unless there are only two possible choices, such as True or False). Students see immediate feedback about their responses. The first incorrect feedback always provides a hint to help students make a second correct choice.

Goals

- to increase knowledge and understanding of the geologic processes that created and continue to change Yosemite
- to encourage respect and a personal connection with Yosemite and other natural areas

Objectives

After completing the Geology section, students will be able to:

- differentiate rocks from minerals, identify the major type of rock in Yosemite, and identify the four minerals composing it (Overview; Field Journal Exercises 2, 5, 6, 11; Activities 1, 4, 5)
- identify examples of weathering and erosion and describe how these processes change landforms in Yosemite and other areas (Overview; Field Journal Exercises 3, 4; Activities 2, 3, 6)
- differentiate between chemical and mechanical weathering and point out examples of each (Field Journal Exercises 4, 9; Activities 2, 3, 10)
- demonstrate that rivers and glaciers carved Yosemite and explain how erosion has affected the evolution of Yosemite's landscape (Overview; Field Journal Exercises 7, 8; Activities 7, 8, 9)
- appreciate, respect, and evidence a personal connection with Yosemite and natural areas (Field Journal Exercise 1; Activity 11).

Tips for Best Computer Use

This site has been tested to run on PCs and Macs using Internet Explorer and Netscape. Each platform and browser behaves differently. To ensure that interactions work correctly, make sure all students have set their browser windows to fill the entire screen. This is very important! If they don't, layers will not appear properly and students may see incorrect feedback to correct answers.